NORTH CAROLINA DIVISION OF AIR QUALITY

Air Permit Review

Permit Issue Date: INSERT DATE

Region: Mooresville Regional Office
County: Gaston
NC Facility ID: 3600224
Inspector's Name: Joseph Foutz
Date of Last Inspection: 06/15/2016
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): American & Efird Plants #5 & #15

Facility Address:
American & Efird Plants #5 & #15
601 American Street & 20 American Street
Mount Holly, NC 28120

SIC: 2284 / Thread Mills
NAICS: 313113 / Thread Mills

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP:
NSPS: 02D .0524 Subpart VVV
NESHAP: 02D .1111 Subpart OOOO and DDDDD
PSD:
PSD Avoidance:
NC Toxics:
112(r):
Other:

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Jimmy Summers VP - EH&S (704) 951-2578 PO Box 507 Mount Holly, NC 28210	Jimmy Summers VP - EH&S (704) 951-2578 PO Box 507 Mount Holly, NC 28210	Jimmy Summers VP - EH&S (704) 951-2578 PO Box 507 Mount Holly, NC 28210

Application Data

Application Number: 3600224.16A
Date Received: 05/03/2016
Application Type: Modification
Application Schedule: TV-Significant

Existing Permit Data
Existing Permit Number: 06691/T18
Existing Permit Issue Date: 01/21/2015
Existing Permit Expiration Date: 12/31/2019

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2014	0.4200	10.04	40.96	8.39	0.6000	14.66	7.20 [Triethylamine]
2013	0.0500	11.13	34.01	9.34	0.6500	12.02	9.23 [Methanol (methyl alcohol)]
2012	0.0500	11.11	39.28	9.35	0.5900	16.03	13.13 [Methanol (methyl alcohol)]
2011	0.0400	10.68	41.07	9.12	0.5600	10.85	7.93 [Methanol (methyl alcohol)]
2010	0.0500	11.10	38.90	9.35	0.6600	10.82	9.04 [Methanol (methyl alcohol)]

Review Engineer: Charles F. Yirka

Review Engineer's Signature: **Date:** INSERT DATE

Comments / Recommendations:
Issue 06691/T19
Permit Issue Date: INSERT DATE
Permit Expiration Date: December 31, 2019

1. Purpose of Application

American & Efird Plants #5 & #15 (A&E) currently holds Title V Permit No. 06691T18 with an expiration date of December 31, 2019 for a textile manufacturing facility in Mt. Holly, Gaston County, North Carolina. This permit application is for a significant modification. The application was received on May 3, 2016. Please also note that a non-confidential business information (CBI) version was submitted under separate cover.

The purpose of the application is to change certain wording in the permit pertaining to operating scenarios for the eleven Thread Bonding Machines at Filament Plant #5. There are no emissions increases associated with this permit application. A summary of the requested changes is included below. See Section 6 below.

All coating lines at A&E (ID Nos. ES-1 through ES-11) are currently permitted to process both nylon and polyester thread. See the last combined permit modification and renewal.

2. Facility Description

A&E owns and operates a bonded nylon and polyester thread manufacturing facility in Mt. Holly, Gaston County, NC. The facility is divided into two plants; Plant #5, which manufactures bonded nylon and polyester thread, and Plant #15, which is the dyeing and finishing plant.

3. Application Chronology

Application Chronology

May 3, 2016	Received application for a significant modification of the permit.
May 4, 2016	Sent acknowledgment letter indicating that the application for permit was complete.
May 5, 2016	Sent a request for technical additional information.
May 19, 2016	Mr. Joe Foutz of the Mooresville Regional Office (MRO) submitted comments on the permit application.
May 20, 2016	Received technical additional information from Mr. Jimmy Summers, Vice President - Environmental, Health & Safety/Sustainability, | Environmental, Health & Safety Department of A&E.
June 29, 2016	Sent out draft permit and permit review for review.
July 1, 2016	Received comments from Mr. Joe Foutz of the MRO and Mark Cuilla, Permitting Supervisor.
July 13, 2016	Received comments from Mr. Summers of A&E.
INSERT DATE	Draft permit sent to concurrent public notice and EPA review.

INSERT DATE Public comment period ends. X comments received.

INSERT DATE EPA comment period ends. X comments received.

INSERT DATE Permit issued.

4. Permit Modifications/Changes and TVEE Discussion

The following table describes the modifications to the current permit as part of this modification process.

Pages	Section	Description of Changes
Cover and throughout	--	Updated responsible official and all dates and permit revision numbers.
3	1.0 – Equipment List	Changed the Plant #5 descriptions substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for all processing lines (ID Nos. ES-1 through ES-11).
11-12	2.1 A.6.o 2.1.B – Equipment List 2.1.B – Table	• Corrected the dates for when the first report is due by Subpart DDDDD as requested by MRO. • Changed the descriptions substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for all processing lines (ID Nos. ES-1 through ES-11). • Changed the limits/standards associated with applicable regulations Subpart VVV and PSD Avoidance by substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for all processing lines (ID Nos. ES-1 through ES-11).
13	2.1 B.4.b	Changed the emission limitation condition requiring emissions be reduced by at least 90% condition by substituting nylon with High VOC Bonds.
15	2.1 B.5.a	Changed the NSPS VVV avoidance requirement condition requiring water borne polyester coating to not exceed 9 percent by weight content by substituting polyester with Low VOC Bonds.
16	2.1 B.6.f	Changed the NAA/RACT avoidance emission limitation condition by substituting references to nylon with High VOC Bonds and for all processing lines (ID Nos. ES-1 through ES-11).
19	2.2 A. – Equipment List	Changed the descriptions removing nylon/polyester references for the thread bonding machines (ID Nos. ES-1 through ES-11).
20	2.2 B. – Equipment List	Changed the descriptions removing nylon/polyester references for the thread bonding machines (ID Nos. ES-1 through ES-11).
21-22	2.2 B.1.e. i through vi 2.2 B.1.g-k and m-n	• Changed the summary of emissions limits condition by substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for all processing lines (ID Nos. ES-1 through ES-11). • Changed the monitoring condition by substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for all processing lines (ID Nos. ES-1 through ES-11).
24	2.3 B.C., and D	Changed conditions associated with RACT rules 02D .0951 and .0955 by substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for all processing lines (ID Nos. ES-1 through ES-11).

Pages	Section	Description of Changes
25	3.0	Updated the General Conditions to the most recent revision (4.0).
34	Attachment	Updated the list of acronyms.

The following changes were made to the Title V Equipment Editor (TVEE) under this permit modification:

- Changed emissions source descriptions only by substituting references to nylon and polyester with High VOC Bonds and Low VOC Bonds for to all processing lines (ID Nos. ES-1 through ES-11).

5. Change in Emissions

All coating lines at A&E (ID Nos. ES-1 through ES-11) are currently permitted to process both nylon and polyester thread. (See the review dated 01/21/2015 for the last combined permit modification and renewal). As such, emissions increases were estimated at that time. As noted in the permit review, A&E requested that all coating lines be permitted to process both nylon thread (POS) and polyester thread (AOS). With this change, the coating of polyester thread was added to lines ES-1, ES-2, ES-4, ES-5, and ES-10. The change was also expected to increase VOC emissions from the facility because emissions from coating of polyester thread are uncontrolled.

There are no changes in emissions as a result of the changes requested as part of this modification.

Air Toxics Evaluation
Under the previous permit a facility-wide evaluation was conducted to ensure that no unacceptable risk to human health results from adding the coating of polyester thread to lines ES-1, ES-2, ES-4, ES-5, and ES-10.

There are no changes in emissions as a result of the changes requested under this modification.

6. Regulatory Review

A&E is subject to the following regulations. The permit will be updated to reflect the most current stipulations for all applicable regulations:

15A NCAC 02D .0503, Particulates from Fuel Burning Indirect Heat Exchangers
15A NCAC 02D .0516, Sulfur Dioxide from Combustion Sources
15A NCAC 02D .0521, Control of Visible Emissions
15A NCAC 02D .0524, New Source Performance Standards (NSPS): 40 CFR Part 60 Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units"
15A NCAC 02D .0524, New Source Performance Standards (NSPS): 40 CFR Part 60 Subpart VVV, "Standards of Performance for Polymeric Coating of Supporting Substrates Facilities,"
15A NCAC 02D .0958, Work Practices for Sources of Volatile Organic Compounds
15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions (State Enforceable Only)
15A NCAC 02D .1109: CAA § 112(j), Case-by-Case MACT for Boilers & Process Heaters
15A NCAC 02D .1111, Maximum Achievable Control Technology: 40 CFR Part 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers"

15A NCAC 02D .1111, Maximum Achievable Control Technology: 40 CFR Part 63 Subpart OOOO "National Emissions Standard for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and other Textiles"
15A NCAC 02D .1111, Maximum Achievable Control Technology: 40 CFR Part 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines"

A regulatory review for these existing requirements will not be included in this document with the exception of the following rules affected by this modification:

- 15A NCAC 02D .0524, New Source Performance Standards (NSPS) – Standards of Performance for Polymeric Coating of Supporting Substrates Facilities, 40 CFR Part 60, Subpart VVV. Most of the thread bonding machines at Filament Plant #5 are subject to this rule. The NSPS Subpart VVV rule contains an avoidance provision as shown below:

  40 CFR 60.740 - Applicability and designation of affected facility.
  (d) This subpart does not apply to the following:
  (2) Coating mix preparation equipment or coating operations during those times they are used to prepare or apply waterborne coatings so long as the VOC content of the coating does not exceed 9 percent by weight of the volatile fraction.

As such, A&E requests the following changes to the permit as indicated by strike-through, underlining and highlighting:

Condition 2.1.B.4.b:
The Permittee shall reduce VOC emissions to the atmosphere from the coating operations (ID Nos. ES-2, ES-3 and ES-5 through ES-11) by at least 90 percent ("emission reduction standard") while ~~processing nylon~~ applying coatings containing greater than 9 percent VOC by weight of the volatile fraction ("High VOC Bonds"), as applied to threads. [40 CFR 60.742(b)(1)]

Similarly, in Condition 2.1.B.5.a:
In order to avoid applicability of 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart VVV, "Standards of Performance for Polymeric Coating of Supporting Substrates Facilities," for the emission sources (ID Nos. ES-2, ES-3 and ES-5 through ES-11) while ~~processing polyester threads~~ applying waterborne coatings ("Low VOC Bonds") to thread, the Permittee shall not exceed the limit of 9 percent by weight of the volatile fraction for VOC content of the coating as applied.

These are examples illustrating where the permit links the bonds and permit conditions to a fiber type (polyester and nylon). A&E instead seeks to link thread bonding, such as nylon processing, with "high VOC bonds" with VOC content of coatings that exceeds 9 percent by weight of the volatile fraction. And, so long as the VOC content of the coating does not exceed 9 percent by weight of the volatile fraction, A&E seeks to link thread bonding, such as polyester processing, with "low VOC bonds". By so doing this will eliminate the differentiation in the permit between nylon and polyester thread.

It follows that A&E also requests that the following references to fiber type (polyester and nylon) in the permit be changed to eliminate this reference:

- Section 1 Table on page 3 – Plant No. 5 section – Remove reference to fiber type, and change Primary Operating Scenario to "…thread bonding processes utilizing High VOC Bonds…" Also change Alternate Operating Scenario to "…thread bonding processes utilizing Low VOC Bonds."
- Section 2.1 heading on page 11, eliminate the reference to "nylon/polyester thread bonding machines" and replace it with "thread bonding machines". Above the table on page 11, replace the wording "while processing nylon" with "while processing High VOC Bonds".
- Section 2.1.B, Table on page 12 – replace "while processing nylon thread" with "while processing High VOC Bonds", and replace "while processing polyester thread" with "while processing Low VOC Bonds".
- Section 2.1.B.6.f – replace "VOC emissions from the nylon thread bonding processes" with "VOC emissions from the processes utilizing High VOC Bonds.."
- Section 2.2.A, heading on page 19, eliminate the reference to "nylon/polyester thread bonding machines" and replace it with "thread bonding machines".
- Section 2.2.B, heading on page 20, eliminate the reference to "nylon/polyester thread bonding machines" and replace it with "thread bonding machines".
- Section 2.2.B.1.e, replace "while processing nylon thread" with "while processing High VOC Bonds" in 3 places, and replace "while processing polyester thread" with "while processing Low VOC Bonds" in 3 places.
- Section 2.2.B.1.g, h, i, j, k, m, and n, replace "while processing nylon thread" with "while processing High VOC Bonds", and replace "while processing polyester thread" with "while processing Low VOC Bonds".
- Section 2.3.B – replace "two (2) – nylon bonding processes" with "two (2) thread bonding processes".
- Section 2.3.C – replace "RACT for Polyester Thread Bonding Manufacturing" with "RACT for Low VOC Bond Thread Bonding Manufacturing".
- Section 2.3.D – replace "RACT for Nylon Thread Bonding Manufacturing" with "RACT for High VOC Bond Thread Bonding Manufacturing".

In summary, the thread bonding machines (**ID Nos. ES-2, ES-3 and ES-5 through ES-11**) while utilizing High VOC Bonds are required to control VOC emissions by at least 90% by NSPS Subpart VVV. Furthermore, these same thread bonding machines when utilizing Low VOC Bonds are not subject to NSPS Subpart VVV as per a NSPS Subpart VVV (and the associated 02Q .0317 avoidance condition now in the permit) and are not required to control emissions. Continued compliance is indicated.

15A NCAC 02D .1111, Maximum Achievable Control Technology - National Emissions Standard for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and other Textiles, 40 CFR Part 63 Subpart OOOO. All of the eleven the thread bonding machines (**ID Nos. ES-1 through ES-11**) at Filament Plant #5 are subject to this rule. The MACT revised Subpart OOOO permit conditions will now contain the following provisions with changes indicated by strike-through, underline and highlighting:

40 CFR 63.4290- What Emissions Limits Must I Meet?
The Permittee has chosen the option of reducing organic HAP emissions to the atmosphere by achieving at least a 97 percent organic HAP overall control efficiency while processing ~~nylon thread~~ High VOC Bonds; and

The Permittee has chosen the option of limiting organic HAP emissions to the atmosphere to no more than 0.12 kg of organic HAP per kg of solids applied while processing ~~polyester thread~~ Low VOC Bonds.

In summary, the thread bonding machines (**ID Nos. ES-1 through ES-11**) while utilizing High VOC Bonds will continue to be required to control HAP emissions by at least 97% while these same thread bonding machines while utilizing Low VOC Bonds will continue to be required to limit HAP emissions to no more than 0.12 kg of organic HAP per kg of solids applied. Continued compliance is indicated.

15A NCAC 02D .1111, Maximum Achievable Control Technology - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers, 40 CFR Part 63, Subpart DDDDD. Mr. Foutz of MRO provided the following comment for a recommended change:

"Section 2.1.A.6.o of Air Permit 06691T18 states the first report the permittee submits for NESHAP 5D must cover January 31, 2016 and be postmarked January 30, 2017. However, the compliance date for NESHAP 5D is not until May 20, 2019. Therefore, it appears the first annual report for NESHAP 5D will cover May 20, 2019 through December 31, 2019 and will be due January 30, 2020."
This condition was changed as requested. Compliance is expected.

7. NSPS, NESHAPS/MACT, NSR/PSD/INCREMENT, RACT, 112(r), CAM

NSPS
The facility is subject to several New Source Performance Standards. Changes to the affected NSPS Subpart VVV are discussed in Section 6 above.

NESHAPS/MACT
The facility is major for HAPs and is subject to several MACTs. Changes to affected MACT Subparts OOOO and DDDDD are discussed in Section 6 above.

RACT
Facilities located in Gaston County with a potential to emit 100 or more tons per year of VOC were subject to RACT requirements. The area is now in compliance with the 1997 ozone standard and is now considered a maintenance area. The requested changes will have no effect on the current RACT conditions in the permit.

NSR/PSD/INCREMENT
A&E is located in Gaston County. This area was designated a non-attainment area for the 1997 8-hr ozone standard on April 15, 2004. Effective June 15, 2004, non-attainment area new source review (NAA/NSR) rule applied in this area to any new major source or a major modification to an existing major source. Note that Gaston County was re-designated to attainment for the 2008 ozone standard in July 2015. As a result, Gaston County is considered in attainment with the ozone standard. Since the area was declared a maintenance area and in attainment on July 28, 2015 the PSD rules now apply not the NAA/NSR rules. A new ozone standard was established by EPA in October 2015. Compliance with the new standard will be determined on October 1, 2017 after adequate monitoring data has been collected.

As there no emissions changes for PM10, SO2 or NOX increment is not consumed or available increment is not expanded.

112(r)
The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in 112(r).

CAM
This facility is exempt from 40 CFR Part 64 the CAM rule. This modification does not effect this status.

8. Facility Wide Air Toxics

The proposed modification does not include new sources and will not result in a potential emissions increase of any state air toxic pollutants. This modification does not effect this status.

9. Facility Emissions Review

There appears to be no potential emissions increases under this modification. Actual emissions for criteria pollutants and HAPs are provided in the header of this permit review.

10. Compliance Status

During the most recent inspection, conducted on June 6, 2016, by Mr. Joe Foutz of the MRO, the facility appeared to be in compliance with all applicable requirements. Additionally, a signed Title V Compliance Certification (Form E5) indicating that the facility was in compliance with all applicable requirements was included with this application for a significant permit modification.

11. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit will be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. The State of South Carolina and the Mecklenburg County Local Program are affected programs within 50 miles of the facility and will be notified accordingly.

12. Other Regulatory Considerations

- A P.E. seal is NOT required for this application.
- A zoning consistency determination is NOT required for this application.

13. Recommendations

The application for a significant modification for American & Efird Plants #5 & #15 in Mt. Holly, Gaston County, NC has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 06991T19.